

What is claimed is:

1. A method of recording management information on a write-once optical recording medium, the recording medium including a temporary defect management area (TDMA) and a final defect management area (DMA), the method comprising:

recording, in the TDMA, management information produced while the recording medium is in use; and

transferring and recording the latest management information of the TDMA in the DMA at a DMA fill-in stage of the recording medium.

2. The method of claim 1, wherein the DMA fill-in stage of the recording medium is when the recording medium is to be finalized.

3. The method of claim 2, wherein the recording medium is to be finalized when no more recording in a user data area of the recording medium is allowed.

4. The method of claim 3, wherein in the transferring step, the latest management information includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

5. The method of claim 2, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

6. The method of claim 5, wherein in the transferring step, the latest management information includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

7. The method of claim 2, wherein the recording medium is to be finalized in response to a user's request.

8. The method of claim 7, wherein in the transferring step, the latest management information includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

9. The method of claim 1, wherein the recording medium further includes a spare area and a user data area, and

wherein in the transferring step, the DMA fill-in stage is when a recordable area remains in the spare area and the TDMA even though no recordable area remains in the user data area of the recording medium, and latest management information of the TDMA at that time is transferred into a first area of the DMA.

10. The method of claim 9, further comprising:

transferring and recording latest management information of the TDMA into a second area of the DMA at a second DMA fill-in stage of the recording medium.

11. The method of claim 10, wherein the second DMA fill-in stage of the recording medium is when the recording medium is to be finalized.

12. The method of claim 11, wherein if the management information is recorded in the first area of the DMA, then a defect management is performed during reproduction of the recording medium; and if the management information is recorded in the second area of the DMA, then a defect management is not performed during reproduction of the recording medium.

13. The method of claim 11, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

14. The method of claim 13, wherein in at least one of the transferring steps, the latest management information includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

15. The method of claim 11, wherein the recording medium is to be finalized in response to a user's request.

16. The method of claim 15, wherein in at least one of the transferring steps, the latest management information includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

17. The method of claim 1, wherein the recording medium is a writeable-once Blu-ray disc (BD-WO).

18. The method of claim 1, wherein in the transferring step, the latest management information includes a status flag indicating a type of the DMA fill-in stage.

19. A method of recording management information on a write-once optical recording medium, the recording medium including a temporary defect management area (TDMA) and a final defect management area (DMA), the DMA including a defect list area for storing therein defect list information, the method comprising:

if no defect management is to be performed on the recording medium, setting a predetermined value in the defect list area of the DMA;

recording, in the TDMA, management information produced while the recording medium is in use; and

transferring and recording the latest management information of the TDMA in the DMA when the recording medium is to be finalized.

20. The method of claim 19, wherein the DMA further includes a disc definition structure area for storing therein disc definition structure information, and

wherein in the transferring step, the latest management information of the TDMA is transferred to the disc definition structure area of the DMA and is latest disc definition structure information associated with the recording medium.

21. The method of claim 19, wherein the recording medium is to be finalized when no more recording in a user data area of the recording medium is allowed.

22. The method of claim 19, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

23. The method of claim 19, wherein the recording medium is to be finalized in response to a user's request.

24. The method of claim 19, wherein the recording medium is a writable-once Blu-ray disc (BD-WO).

25. The method of claim 19, wherein in the transferring step, the latest management information includes a status flag indicating a type of the finalization of the recording medium.

26. An apparatus for recording management information on a write-once optical recording medium, the recording medium including a temporary defect management area (TDMA) and a final defect management area (DMA), the apparatus comprising:

means for recording, in the TDMA, management information produced while the recording medium is in use; and

means for transferring and recording the latest management information of the TDMA in the DMA at a DMA fill-in stage of the recording medium.

27. An apparatus for recording management information on a write-once optical recording medium, the recording medium including a temporary defect management area (TDMA) and a final defect management area (DMA), the DMA including a defect list area for storing therein defect list information, the apparatus comprising:

means for setting a predetermined value in the defect list area of the DMA if no defect management is to be performed on the recording medium;

means for recording, in the TDMA, management information produced while the recording medium is in use; and

means for transferring and recording the latest management information of the TDMA in the DMA when the recording medium is to be finalized.

28. A write-once optical recording medium for recording management information thereon, the recording medium comprising:

at least one recording layer including a temporary defect management area (TDMA) and a final defect management area (DMA),

wherein management information produced while the recording medium is in use is recorded in the TDMA, and

the latest management information of the TDMA is transferred and recorded in the DMA at a DMA fill-in stage of the recording medium.

29. The recording medium of claim 28, wherein the DMA fill-in stage of the recording medium is when the recording medium is to be finalized.

30. The recording medium of claim 29, wherein the recording medium is to be finalized when no more recording in a user data area of the recording medium is allowed.

31. The recording medium of claim 30, wherein the latest management information transferred and recorded in the DMA includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

32. The recording medium of claim 29, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

33. The recording medium of claim 32, wherein the latest management information transferred and recorded in the DMA includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

34. The recording medium of claim 29, wherein the recording medium is to be finalized in response to a user's request.

35. The recording medium of claim 34, wherein the latest management information transferred and recorded in the DMA includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

36. The recording medium of claim 28, wherein the at least one recoding layer further includes a spare area and a user data area, and

wherein the DMA fill-in stage is when a recordable area remains in the spare area and the TDMA even though no recordable area remains in the user data area of the recording medium, and latest management information of the TDMA at that time is transferred into a first area of the DMA.



37. The recording medium of claim 36, wherein latest management information of the TDMA is transferred and recorded into a second area of the DMA at a second DMA fill-in stage of the recording medium.

38. The recording medium of claim 37, wherein the second DMA fill-in stage of the recording medium is when the recording medium is to be finalized.

39. The recording medium of claim 38, wherein if the management information is recorded in the first area of the DMA, then a defect management is performed during reproduction of the recording medium; and if the management information is recorded in the second area of the DMA, then a defect management is not performed during reproduction of the recording medium.

40. The recording medium of claim 38, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

41. The recording medium of claim 40, wherein the latest management information recorded in at least one of the first and second areas of the DMA includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

42. The recording medium of claim 38, wherein the recording medium is to be finalized in response to a user's request.

43. The recording medium of claim 42, wherein the latest management information recorded in at least one of the first and second areas of the DMA includes latest temporary defect list information and latest temporary disc definition structure information associated with the recording medium.

44. The recording medium of claim 28, wherein the recording medium is a writable-once Blu-ray disc (BD-WO).

45. The recording medium of claim 28, wherein the latest management information includes a status flag indicating a type of the DMA fill-in stage.

46. A write-once optical recording medium for recording management information thereon, the recording medium comprising:

at least one recording layer including a temporary defect management area (TDMA) and a final defect management area (DMA), the DMA including a defect list area for storing therein defect list information,

wherein if no defect management is to be performed on the recording medium, a predetermined value is set in the defect list area of the DMA,

management information produced while the recording medium is in use is recorded in the TDMA, and

the latest management information of the TDMA is transferred and recorded in the DMA when the recording medium is to be finalized.

47. The recording medium of claim 46, wherein the DMA further includes a disc definition structure area for storing therein disc definition structure information, and

wherein when the recoding medium is to be finalized, the latest management information of the TDMA is transferred to the disc definition structure area of the DMA and is latest disc definition structure information associated with the recording medium.

48. The recording medium of claim 46, wherein the recording medium is to be finalized when no more recording in a user data area of the recording medium is allowed.

49. The recording medium of claim 46, wherein the recording medium is to be finalized when the TDMA is full and no more management information can be recorded in the TDMA.

50. The recording medium of claim 46, wherein the recording medium is to be finalized in response to a user's request.

51. The recording medium of claim 46, wherein the recording medium is a writable-once Blu-ray disc (BD-WO).

52. The recording medium of claim 46, wherein the latest management information includes a status flag indicating a type of the finalization of the recording medium.